

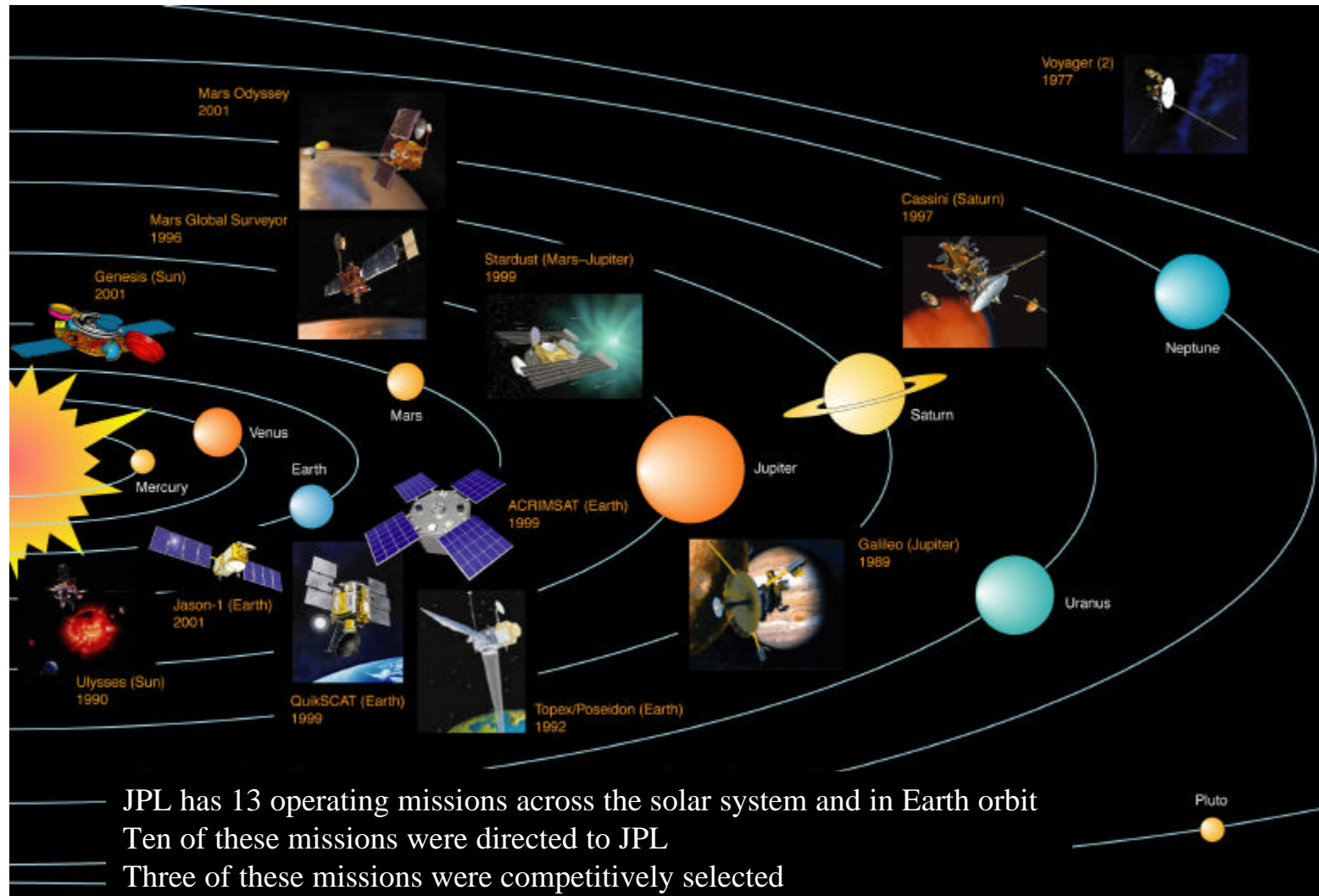


JPL's Proposal Process for NASA Research Announcements and Announcements of Opportunity

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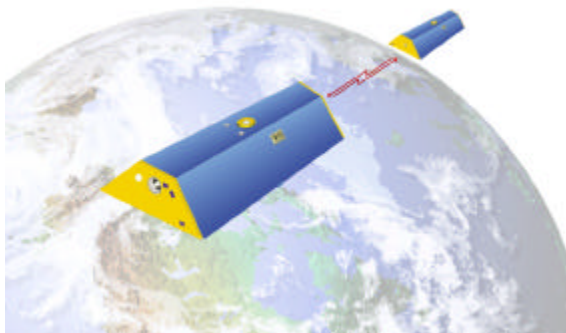
March 5, 2002



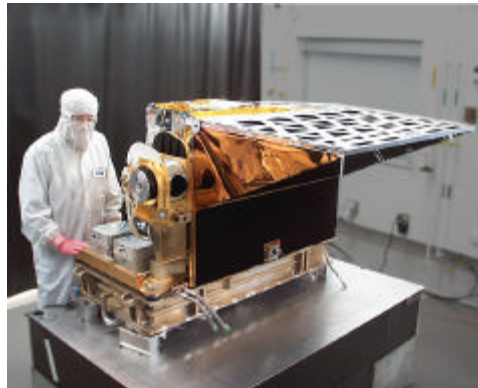
JPL has 13 operating missions across the solar system and in Earth orbit
Ten of these missions were directed to JPL
Three of these missions were competitively selected



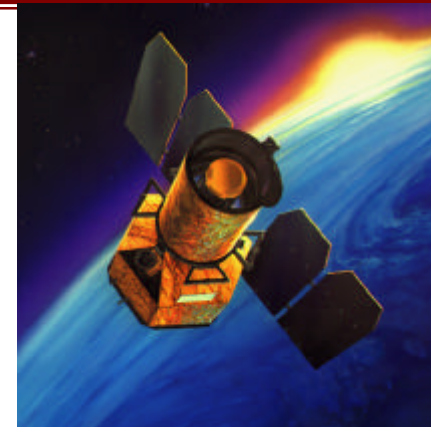
Upcoming Launches



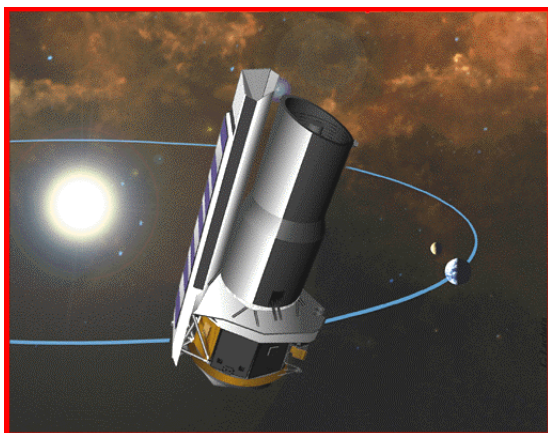
GRACE: March 2002
Code S, Space Physics
Discovery Mission (Competitive)



AIRS: April 2002
Code Y, EOS instrument (Competitive)



Galex: July 2002
Code S, Astrophysics
Small Explorer (Competitive)



SIRTf: Dec 2002/Jan 2003
Code S, Astrophysics (JPL Directed mission)



SeaWiFS: November 2002
Code Y, Ocean winds (JPL Directed Mission)



- NASA is increasing competition, and directing less funding to Centers
 - Technology development
 - Science research
 - Advanced instrument development
 - Flight missions
- NASA uses two primary forms of Broad Agency Announcements to competitively fund work
 - Announcements of Opportunity
 - NASA Research Announcements
- NASA Research Announcements' (NRA) are typically used for technology development, science research, and advanced instrument development
- Announcement of Opportunities (AO) are typically used for flight missions and instruments



- Examples of NASA Announcements of Opportunity calls:
 - Discovery missions (Code S, planetary)
 - Mid-size Explorers (MIDEX) missions (Code S, Astrophysics)
 - Small Explorers (SMEX) missions (Code S, Astrophysics)
 - Earth System Science Pathfinder (ESSP) missions (Code Y, Earth Science)
 - Mars Scout missions (Code S, Mars)
 - Instruments for directed missions such as Cassini, Mars and NGST



- Examples of NASA Research Announcements (NRA) calls:
 - Planetary Instrument Development Program (PIDDP) (Code S, Planetary)
 - Mars Instrument Development (Code S, Mars)
 - Advanced Component Technologies (Code Y, Earth Science)
 - Fundamental Space Biology Ground-Based Research (Code U)
 - Astrobiology Technology for Exploration of Planets (Code S, Planetary)
 - In-Space Propulsion (Code S, Planetary)
 - Fundamental Physics Research (Code U)

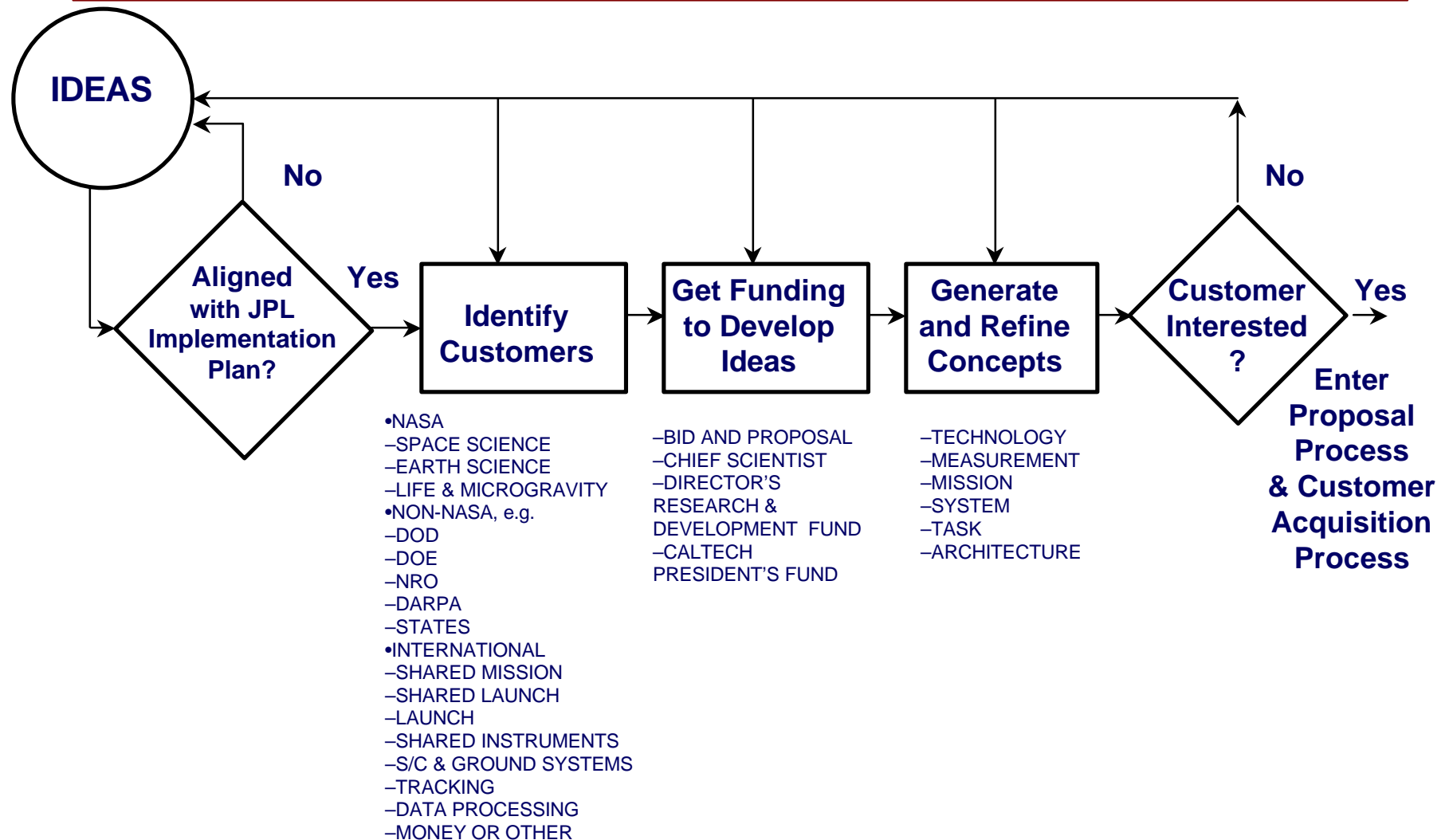


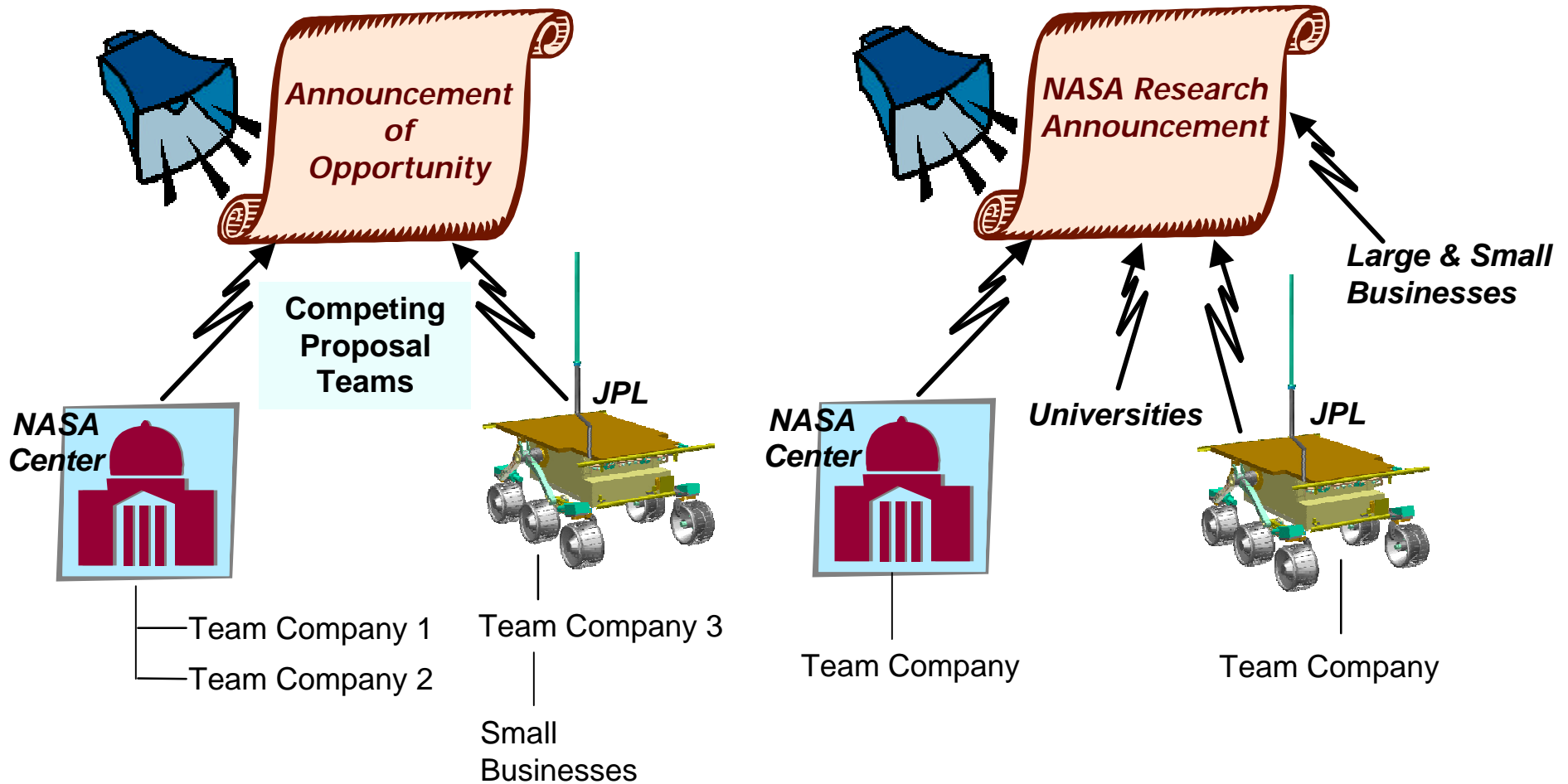
- Legislated federal research and development set-aside for small high technology businesses
- Small Business Innovative Research (SBIR)
 - Phase 1 SBIRs are for \$70K maximum, for up to six months
 - Phase 2 SBIRs are for \$600K maximum, for up to two years
- Small Business Technology Transfer (STTR)
 - Phase 1 STTRs are for \$100K maximum, for up to one year
 - Phase 2 STTRs are for \$500K maximum, for up to two years
- Phase 1 SBIR and STTR calls are typically yearly
- Phase 2 SBIR and STTR calls are typically every two years
- For more information see <http://sbir.nasa.gov/>

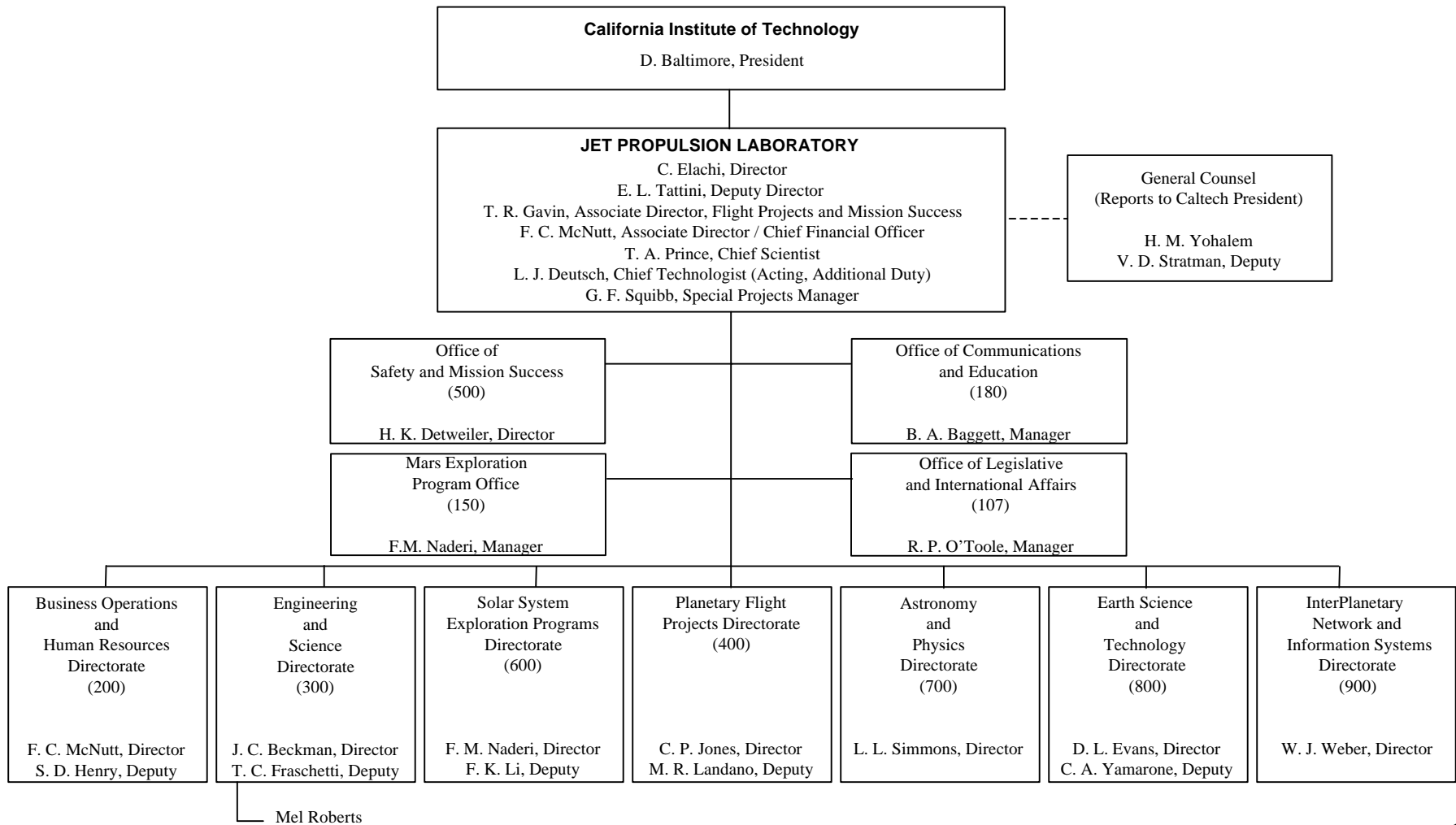


Identifying Sources of Opportunity







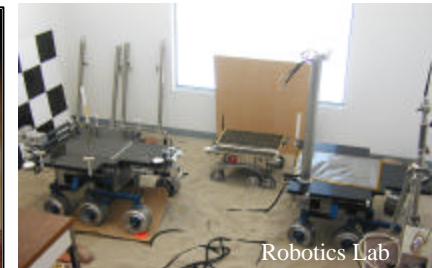
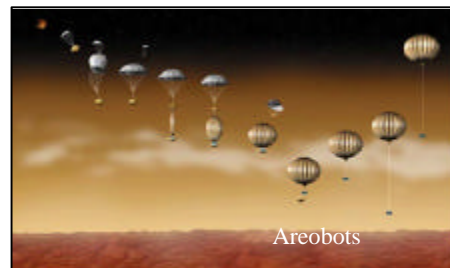
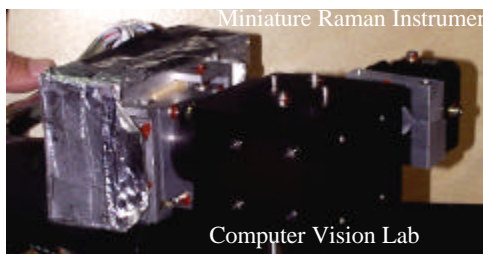




Future Direction Provides Ground-Floor Opportunity



- Focus shifting to surface and near-surface science exploration
 - Drives technology needs for mobility and in-situ science instruments
 - Rovers, aircraft, balloons, drills, melting probes, and submarines
 - Small, highly integrated in-situ science instruments with a focus on mineralogy and life-detection
- Significant increase in software development and information technology
 - Drives technology needs for breakthrough software development processes and validation, autonomous operation, intelligent, collaborative sensors





INTERMISSION